MEDICAL PATHOLOGY AND THERAPEUTICS, AND PRACTICAL MEDICINE.

11. *Origin of the Globules of Pus.*—M. VULPIAN communicated to the Imperial Academy of Science (Feb. 15th, 1870) the results of experiments recently performed by himself and Dr. HAYEM, with the view of elucidating the question respecting the origin of the globules of pus. These experiments confirm in every respect the theory of suppuration propounded by Cohnheim. The globules of pus are nothing but the white globules of the blood which exude through the vessels in the vicinity of the inflamed part. M. V. quotes numerous observations made by himself and Dr. Hayem which prove this so satisfactorily that it is difficult to doubt its correctness.—*L'Union Médicale*, Feb. 17th, 1870.

12. *Origin of Tuberculosis.*—Prof. NIEMEYER contends that blood remaining in the bronchi after hæmoptysis leads to cheesy pneumonia, and later to disintegration of the tissue. Professor Traube is opposed to this, saying that the case of Niemeyer, where single thrombi were found in the bronchi *post-mortem*, did not prove much; nor did those cases of tuberculous disease where the temperature rose only a few days after the hæmoptysis. He had many cases of acute tuberculosis where death happened during the initial bleeding; but in no cases thrombi, much less disintegration, were found. Therefore, Niemeyer's case may be considered exceptional. First, it was not proved that, at the time when the thermometer indicated "no fever," there was none. But, if there were none, the first beginning of inflammation may have been very circumscribed; and, with the spread of inflammation, fever supervened. In the same way, it may have been impossible to detect the disease by auscultation in the beginning, it being perhaps confined to a limited part, or of small extent. *Brit. Med. Journ.*, Feb. 19, 1870, from Schmidt's *Jahrbücher*, 1869.

13. *Formation of Tubercles in Coagula of Blood.*—Prompted by a remark made by Rokitansky, in reference to the development of tubercles in blood coagula, Dr. BIESIADECKI, directed particular attention to the subject, to determine for himself the accuracy of Rokitansky's observation in this respect. During three years frequent opportunities occurred to him of observing the formation of tubercular deposits in large coagula of blood. In three cases the coagula were formed within the pleural cavity, and in one within the peritoneal. In all of these cases the surrounding serous surfaces were thickly beset with fresh tubercular deposits, while from the surface of the coagula were projected numerous bloodvessels engaged in the formation of pseudo-membranous adhesions. Upon the surface of the latter and of the coagula were numerous tubercular deposits, which here and there were found also deeply imbedded in the substance of the coagula. Under the microscope the tubercles presented themselves in groups, imbedded amid a fatty deposit within a recently formed fibrous network, surrounded by a clear zone of extremely protoplastic white blood corpuscles. As to the conditions under which the development of tubercles in coagula of blood takes place nothing positive has as yet been made out.—*Centralblatt f. d. Medicin. Wissenschaften*, Feb. 6, 1869, from *Wien. Acad. Sitzungsber. Mathem.-Naturw. Cl.* 2, *Abth.* lvii. D. F. C.

14. *Tuberculosis.*—From the results of ten post-mortem examinations made at the Würzburg Pathological Institute, in cases selected from 109 cases of pulmonary phthisis, in all of which the presence to a greater or less extent of generally disseminated miliary tubercles was detected, conjoined with cavernous excavations or with traces of the results of old inflammatory processes, especially deposits of cheesy matter; Dr. HINKELDEYN disputes the accuracy of the theory of tuberculosis advanced by Buhl Dittrich, and more recently by C. E. E. Hoffman, namely, that miliary tubercles are the result of the resorption of a cheesy product, the deposit of which precedes always the formation of the tubercle. Dr. H. thinks that it is much more probable that the formation of tubercles is, in every instance, to be viewed as the primary change. When these

are widely disseminated and undergo speedy disintegration, a special process of inflammation is excited, which terminates in the formation of caseous matter.—*Inaug. Dissert. Würzburg*, 1868, per *Centralblatt f. d. Med. Wissenschaften*, Nov. 20, 1869. D. F. C.

15. *Tuberculous Stricture of Œsophagus.*—Dr. Kraus describes the case of a man 47 years old, in whose œsophagus had been formed a tuberculous swelling two inches broad, which had for the space of three years given rise to a sensation as though there had taken place a very close stricture of the gullet. A few days before the patient died, two extensive caverns which had been formed in the middle and lower lobe of the right lung, penetrated by ulceration the walls of the œsophagus.—*Centralblatt f. d. Med. Wissenschaften*, 1869, No. 50, from *Allg. Wiener. Med. Zeitung*, 1869, No. 19. D. F. C.

16. *Brain of an Aphasic.*—The *Glasgow Med. Journ.* for Feb. 1870, contains an elaborate report by a committee on the brain of an aphasic, a patient of Dr. A. Robertson, in whom hemiplegia of the right side and aphasia coexisted with fair intelligence, which remained unimpaired to the close of life. This case gives support to the view which connects the expression of language with the left hemisphere, and more especially with the frontal lobe of that hemisphere. The symptoms during life were those of nearly pure aphasia. The patient was intelligent; language was in her mind, but *the power of expression* was all but lost. A very interesting feature in this case is the atrophy of the left crus cerebri and same side of the pons Varolii, and of the right side of the medulla oblongata—a condition which, if the brain had been fully dissected, would probably have been found to extend to the thalamus opticus, corpus striatum, and corpora quadrigemina of the left hemisphere. It is evident that the conductors passing to and from the palsied side and the hemisphere are wasted, showing that the central organs of the nervous system are, like other tissues, subject to the general law that, when an organ either partially or completely ceases to discharge the functions with which it was originally endowed, its nutrition is checked, it decays, and is removed. A few cases of similar atrophy of the central nervous system in hemiplegics have been recorded, especially by a German observer, Dr. Ludvig Türck, who traced the wasting down the spinal cord, usually in the anterior column of the side affected, and in the lateral column of the opposite side, thus so far corroborating the doctrine held by physiologists of the constitution of the spinal cord and the functions of its columns.

17. *Anosmia; Cases illustrating the Physiology and Pathology of the Sense of Smell.*—This is the title of a paper by Dr. William Ogle, read before the Royal Med. and Chir. Society Jan. 25th, 1870. The author relates three cases which have fallen under his observation, in which total loss of smell was produced by a blow on the head, and he attributes the anosmia to rupture of the olfactory nerves, and points out how these nerves are especially liable to injury from blows on the occiput, which was the part struck in each case. Each patient complained not only of loss of smell, but also of loss of taste. True taste, however, was really unimpaired; what was lost was the power of recognizing "flavours," which are sensations compounded of smell and taste. These cases afford an opportunity of drawing a clear line between taste and smell, and show that taste is limited to the perception of acid, salt, sweet, and bitter. These simple tastes compounded with smells form "flavours." Various cases are then considered which seem in contradiction with this opinion—cases, namely, in which smell is apparently lost, and yet the perception of flavours remains. These cases are explained, and the contradiction shown to be only apparent. A second group of cases follows, in which anosmia resulted from lesion of the nerve centres. It is shown that anosmia is a frequent accompaniment of aphasia, and it is argued that the explanation of this is to be found in the proximity of the so-called external root of the olfactory nerve to the part of the brain usually affected in aphasia, a proximity which renders the two parts very liable to be involved in one common lesion. The relative importance of the external

and of the other roots of the olfactory bulb is considered, and it is held that the latter have little, if anything, to do in the perception of olfactory sensations. Lastly, a case of anosmia, recorded many years ago by Dr. Hutchinson, is discussed at length. A negro began, in his twelfth year, to lose his colour, and, in course of time, became perfectly white. The loss of colour was accompanied by loss of the sense of smell, almost, if not quite, complete. This seems to have been hitherto considered a fortuitous coincidence. The author argues that such is in the highest degree improbable, and accounts for the anosmia by the destruction of the pigment of the olfactory region. Numerous arguments are used to show that this pigment plays an important part in olfaction, and that the keenness of this sense in man and mammals depends, in great part, on the intensity and extent of nasal pigmentation. Reasons are also adduced for believing that pigment is of use in the reception of auditory impressions, so that there would be a certain similarity in this respect between the three main organs of special sense, the eye, the ear, and the nose. Finally, an hypothesis is advanced as to the manner in which the pigment operates, and especially as to the manner in which it operates in olfaction.

The President said the paper contained many most novel facts and much ingenious reasoning. As it would be impossible to discuss properly the theory brought forward, he would ask the Fellows for similar cases to illustrate the subject.

Dr. Althaus said the injury to the patient was usually insufficient to cause uneasiness at the time. Generally the condition of anosmia was discovered accidentally. The condition was not unpleasant, as in a patient of his who lived in Westminster, when the river was so bad some years ago, and who then congratulated himself on his loss of smell. He thought the condition more likely to depend on injury to the bloodvessels than on injury to the bone. In most cases aphasia was associated with this condition. A case related by Claude Bernard contradicted Dr. Ogle's theory. A woman died of consumption; her brain was healthy, but she had no olfactory nerves, yet she had liked flowers and disliked tobacco smoke. He had an anosmic patient who was very fond of the bouquet of moselle. This also contradicted Dr. Ogle's view. He had known to be associated with epilepsy a bad smell as an aura days before the fit.

Dr. Broadbent had seen two or three cases which confirmed Dr. Ogle, and, therefore, contradicted Dr. Althaus. One gentleman fell from his horse, fractured the ethmoid bone, and became anosmic. Two other cases came about much in the same way. There was no smell, and little taste. Salts, sours, and bitters could be appreciated. He had experimented on the case reported by Dr. Ogle, where the soft palate adhered to the pharynx. As the woman lost smell, so did she, *pari passu*, taste. In Bernard's case it was inferred merely that she had smell, as it was the motion of putting them to her lips which made them believe the woman was fond of flowers. He thought the injury to the olfactory to be most likely intracranial. He thought the external root of the olfactory of less importance than the middle and internal.—*Lancet*, Feb. 12, 1870.

18. *Paræsthesia of Taste.*—Dr. WERNICH, in the *Arch. f. Psychiatrie u. Nervenkrankh.*, states that in two of his patients, and once in his own person, he noticed, following an injection of morphia, the occurrence of a bitter, and on one occasion of a disagreeable, sourish taste, which was at once overcome by taking a drink of water. In the case of "hallucination" of taste, recorded by Rose, Dr. W. refers the abnormal phenomenon to an irritation seated at the nervous centre of the sense of taste. An interesting observation connected with this subject is that a condition of inanition, long-continued hunger, etc., would seem to favour the normal sensibility of the tongue to flavours.—*Centralblatt f. d. Med. Wissenschaften*, Dec. 18, 1869. D. F. C.

19. *Local Development of Heat in Inflammation.*—Dr. G. LAUDIEN thus sums up the results of forty experiments made by him upon dogs and rabbits to determine the question whether there takes place an increase of temperature

in the neighbourhood of an inflamed part. 1. The temperature of the skin or of the muscular tissue, when the seat of intense inflammation, even to its lowest layer, in immediate contact with the bone, never rises as high as that of the upper portion of the rectum or vagina, nor as high as that of the abdominal cavity. The temperature of the internal portions of the body is always higher than the swollen and inflamed soft parts surrounding the place of fracture in a bone, or of the inflammation produced by the subcutaneous injection of a mixture of croton and castor oil, or by the application of hot oil, etc., in which cases there is experienced a sensation as though the heat of the inflamed parts is greatly increased. The difference amounted in the case of very intense inflammatory processes almost always to from 1° to 2° C., and varied only in four observations ½ to 1° C. 2. The temperature of the inflamed localities was greater during the acute stage than that of the corresponding sound parts, when there does not occur from direct communication with the atmosphere, as in the case of open wounds, ulcers, etc., a constant loss of heat. The difference of temperature was the slightest the furthest removed the inflamed tissue from the surface of the body. In inflammation of a rabbit's ear, so long as the epidermis remained intact, the temperature rose from 4° to 5° C. In the inflammation of the extremities of dogs and rabbits the increase of temperature seldom amounted to 1° C.; usually it was from 0.2° to 0.5° C., and in some cases there was no increase. In the further course of the inflammatory process, when copious purulent infiltration, or the formation of a deep-seated abscess takes place, the part becomes, so far as regards its temperature, in some degree on a par with that of the sound limb. 3. The temperature of the arterial blood, procured from the crural artery in dogs by the introduction of very thin conical needles was found to be, as well by Dr. L.'s former experiments as by others still in progress, permanently higher than that of the blood contained in the arteries at the focus of inflammation, and towards which was its natural course.—*Centralblatt f. d. Med. Wissenschaften*, April 17, 1869. D. F. C.

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20. *Certain Morbid Changes in the Nervous System, associated with Diabetes.*—Dr. Wm. Howship Dickinson read some interesting observations on this before the Royal Med. and Chirurg. Society, Feb. 8th, 1870. Diabetes has hitherto been regarded as a functional disorder, and has been attributed to erroneous action rather than structural change. This view, however, must be looked upon as only provisional. Function is simply the expression of structure; structure and function are as inseparable as cause and effect. Where, as in diabetes, function is permanently altered, it follows of necessity that there should be equally abiding change in the mechanism of the organs concerned. In this belief the various organs of diabetic subjects were subjected to a searching examination, and it was found that the nervous system was the seat of important alterations, an observation which gained significance from the discovery of Bernard that puncture of a certain part of the medulla oblongata rendered the urine saccharine.

[The details of the examination of the organs in five diabetic subjects were laid before the Society, and the pathological changes in the brain and cord illustrated by a series of drawings, representing their naked eye and microscopic appearances.]

The results obtained in the five cases were briefly these: Peculiar morbid changes were constantly found in the cerebro-spinal system. In all the alterations were of the same nature, and for the most part in the same situations. The earliest alteration recognized was a dilatation of the arteries. This was followed by a degeneration of the nervous matter at certain points external to them. An extension of the degenerative process occasioned destruction and excavation of the tissue around the vessel. Cavities were thus produced (often large enough to be striking objects even without the microscope), which contained bloodvessels, extravasated blood, grains of pigment, and the products of nervous decay. Finally, the contents appeared to become absorbed, so that simple vacuities were left.

As to their situations, the changes occurred in constant association with arteries. They were found in every part of the spinal cord and encephalon, attaining their greatest development in the medulla oblongata and pons Varolii. The excavations were frequently in connection with folds of pia matter, and were often disposed with lateral symmetry. Several spots were found to be affected uniformly in all the cases examined—namely, the olivary bodies, the vicinity of the median plane of the medulla, the gray matter of the floor of the fourth ventricle, and in particular a spot just internal to the origin of the facial nerve. This point presented a remarkable sameness in all the cases, a large excavation lying generally on both sides in connection with a process of pia mater. Another spot, which in four of the five cases presented a considerable cavity, was found near the front of the pons, in the median line, also in connection with the pia mater. The optic thalami and corpora striata were involved to a slight extent. The septum of the ventricles, and the white matter of the convolutions, displayed the alterations in a remarkable manner, as also did the corpus dentatum of the cerebellum. The changes especially affected the white matter, though the gray matter at the floor of the fourth ventricle and of the spinal cord are exceptions to this statement. The cells of the gray matter were generally perfect. The deterioration was not general, but was limited to the vicinity of the arteries. Such parts of the sympathetic system as were examined, namely, the upper cervical and semilunar ganglia, were apparently natural. The only constant change found in the viscera was epithelial accumulation in the liver and kidneys.

It would seem from the foregoing observations that diabetes is associated with an organic change, which may be briefly described as a destruction of the nervous matter along the arteries of the brain and cord. From the uniformity with which this was found in the five cases examined, it may be presumed that there was a more than accidental connection between the symptoms of diabetes and the peculiar state of the nervous centres. The question presents itself, whether the lesion is a result of the disease or its cause. The association of the morbid action with the bloodvessels suggests that it may be connected with the state of the blood. We know that the blood in diabetes is altered by the presence of sugar; is it to this that the deterioration of tissue is due? Several considerations militate against this, at first sight, probable explanation. The veins and capillaries appeared to take no share in the morbid process, though equally permeated by diabetic blood, which, in the capillaries at least, is brought into more intimate relation to the tissues than in the arteries. If the changes in the tissues were directly due to the altered composition of the blood, the capillaries could hardly fail to distribute its morbid influence. Besides this, the blood traverses the whole body without producing in any other organ an analogous failure of nutrition. We may probably abandon the view that the changes described are consequent upon the diabetic state of the blood, and have recourse to the supposition that the nervous alterations are antecedent to and productive of the glycosuria. The following considerations may be mentioned in favour of the latter supposition. No organic change has been found elsewhere to which the saccharine state of the urine can be attributed. The alterations in the brain are, in their nature and situation, exactly such as physiology has shown to be capable of producing that symptom. Further, we are the more disposed to regard the nervous changes as primary by the fact that alterations similar in kind, though differing in distribution, occur, as belonging exclusively to the nervous system, quite independently of diabetes. This is the case particularly in the general paralysis of the insane. Dr. Lockhart Clarke has, since most of the preceding observations were made, described the lesions in that disorder, and shown that, though differing somewhat in situation, they are of the same nature as those here described. The conclusion that diabetes is primarily and essentially a nervous disease accords with all that is known of its natural history; indeed, the opinion has, of late years, been gaining ground, that the disorder is due to altered nervous action, though no structural change was known to account for it. The urine often becomes saccharine in consequence of injuries of the head, apoplectic seizures, intra-cranial tumours, and other sources of cerebral irritation. These traumatic and accidental forms of the disease are, as we may believe, not necessarily accompanied by the grave and general lesions which have been under consideration. Several kinds of irritation, if acting in the right situation, give rise to a similar change in the urine, though often temporary, and for the most part unaccompanied by the serious symptoms which characterize what may be termed "idiopathic" diabetes. Diabetes in its ordinary "idiopathic" form, though sometimes hereditary, and often taking its origin in causes which are not within our knowledge, continually results from circumstances which exert a depressing or otherwise injurious action upon the nervous functions; among them may be mentioned mental disturbances, rage, grief, anxiety, and toil, and the various forms of dissipation, among which sexual excess takes a prominent place. Causes of this nature may readily give rise to modifications of circulation in the nervous centres, and it has been shown that, as far as could be learned from the microscope, a widening or distension of the arteries was the initial change in the pathological series.

The foregoing observations concur in leading to the belief that diabetes essentially belongs to the nervous system, a consideration which may have a practical issue in modifying the treatment of the disease.

Dr. Lockhart Clarke bore testimony to the faithfulness with which the appearances had been described. They were precisely similar to those which he had met with in a case of general paralysis, and of which he had given an account in the last number of the *Journal of Mental Science*. As far as he knew, nothing like them had been described before. In his case, which was a typical one of general paralysis, the brain resembled Gruyère cheese, or crumb of bread. The bloodvessels in the brain were surrounded by the so-called perivascular sheaths, and these were contained in large channels in the brain-tissue. The structure of the perivascular sheaths underwent some thickening, and they had then been supposed by Rokitanski and others, to be an exudation; but they were natural structures. The cavities were not new formations in the brain, but were left by the destruction of the vessels and their sheaths. Dr. Dickinson had not referred to the mental state of his patients. In his (Dr. Lockhart Clarke's) case the cells of the convolutions were much altered, had undergone degeneration, and were loaded with pigment-granules. He had also found in a case of diabetes degeneration of the floor of the fourth ventricle, and erosion of the calamus scriptorius, with destruction of the nuclei of the vagus. It is very remarkable that there were cavities at the roots of the facial nerves, and in his case he had found the same.—*Lancet*, Feb. 19th, 1870.

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21. *Polyuria in Chronic Renal Disease.*—Dr. Finny read a paper on this subject before the Medical Society of the College of Physicians. The author, after giving a short *résumé* of the symptoms and pathology of the cirrhosed and amyloid kidneys, in which polyuria is a prominent feature, referred to the difficulty of explaining the elimination of water in excess of that in health by the theory of filtration through the Malpighian corpuscles, since they are primarily and most extensively diseased. Regarding the true function of these bodies, Dr. Finny inclined to the view put forward by Dr. R. Southey as to their being blood-regulators. Stress was laid upon the fact that the *vasa recta* have a distinct arterial origin, as was first discovered by Virchow, and confirmed by Leydig, Beale, and others. The author considered that the secretion of both the solids and fluids of the urine took place from the epithelial investment of the tubuli uriniferi in their entire course, except just at the orifices of the straight tubes near the papillæ. The distinct vascular supply of the cones, their congested appearance in the amyloid disease, and their freedom from lesion in cirrhosis, imparted much probability to the view that, under these diseased conditions, compensatory work was done in the cones. Again, as the vessels supplying them increased in calibre, a flow of watery urine resulted, the presence of albumen being an accidental condition due to an escape of blood-serum through the walls of some of the capillaries, whether Malpighian or otherwise. In cirrhosis, several constitutional causes were no doubt at work besides those related to the kidneys; for example, a watery character of the blood, a strong cardiac action, and a dry state of the skin.—*Brit. Med. Journ.*, February 26th, 1870.

22. *The so-called Cerebro-pneumonia of Children.*—The *Centralblatt f. d. Med. Wissenschaften* (Nov. 20, 1869), quoting from the *Jahrb. f. Kinderkrankheilkunde*, 11, S. 357, states that Dr. STEINER has presented an accurate description of the movements liable to be produced in the character and course of the croupous pneumonia of children, by the occurrence of acute cerebral disease. Symptoms of cerebro-meningitis often make their appearance in such cases so early in the attack, and are of so prominent a character that, without a close physical exploration of the chest, the physician may be misled into a belief that he has to deal with simply a primary case of meningitis or other acute disease of the brain. This is owing to the promptness with which in children the brain is liable to participate in the inflammatory condition of the other organs. Dr. S. has treated sixteen cases of the so-called cerebro-pneumonia, in which there was present also a purulent inflammation of the inner ear. These cases were in children from 5 to 10 years old, and who had at no former time suffered from any affection of the ear, but had been previously in all respects perfectly healthy. In ten, males, the inflammation was confined to one ear, and in six, males, both ears were affected. That in all these cases the otitis was directly connected with the cerebral disease, Dr. S. thinks was fully shown by the fact that simultaneously with the occurrence of the purulent discharge from the ear, the symptoms of cerebral disease speedily disappeared.

D. F. C.

23. *Softening of the Coats of the Œsophagus in an Adult.*—To the cases already published by him of softening of the œsophagus in the adult (*Centralblatt*, 1868, S. 839), Dr. HOFFMAN adds another which occurred in a parturient female aged 27 years. She was seized with a severe attack of erysipelatous disease attended by fever of a very intense grade, speedily terminating in death. On the posterior wall of the œsophagus there existed a hemorrhagic infiltration of the mucous coat about three cm. in extent; in the midst of this there was a small opening with brownish fatty edges, through which there was poured into the left pleural cavity a quantity of coffee-coloured fluid. The serous covering of a lower portion of the left lung was to a considerable extent eroded, as it were, apparently from immersion in this fluid. In the stomach was contained a large quantity of the same dark-coloured fluid. The coats of the organ presented nothing abnormal.—*Centralblatt f. d. Med. Wissenschaften*, Dec. 25, 1869, from *Virchow's Arch.* xlvi. S. 124. D. F. C.

24. *Case of Chronic Invagination of Intestines.*—Dr. SPATH describes the case of a tailor, 36 years old, who had from the period of his apprenticeship suffered from repeated attacks of colic. Within the last six months these attacks had increased in severity and recurred at shorter intervals. The greatest ease was felt when subsequent to a paroxysm of pain a discharge from the bowels, but seldom spontaneously, took place. Within a week or two of the final result a soft swelling, painful to the touch, appeared to the left of the navel, soon after which diffused peritonitis suddenly set in, under which the patient quickly sunk. On examination after death, the cavity of the abdomen was found to contain a quantity of fecal matter. There was diffuse suppurative inflammation of the peritoneum, and a most extensive intestinal invagination. The cæcum and a portion of the ascending colon had, as it were, disappeared; the remaining portions of the large intestine forming a sheath into the cavity of which the apparently absent portions of the intestine had become involved. The enormously enlarged cæcum, of which the muscular coat, hypertrophied, hardened, and fatty, had attained the thickness of 2.6 m., had burst through the anterior gangrenous wall of the ensheathing intestine, and turning upwards outside of it, pressed upon the abdominal parietes, giving rise to the soft tumour formed before death to the left of the navel. Between the serous surfaces of the escaped cæcum and of the colon upon which, in turning up, it rested, there had taken place numerous tolerably firm adhesions. Those around the upper portion of the cæcum formed a kind of annular stricture, including all the coats of the invaginated portion. While the large intestines were in part gangrenous, the incumbent coil of small intestines, with the exception of being much dis-

tended with gas, did not exhibit any morbid changes. Within them were found a few dry hard masses of fecal matter. Dr. S., from a comparison of the clinical and anatomical facts connected with this case, concludes that the invagination had been of some six months' existence.—*Centralblatt f. d. Med. Wissenschaften*, 1869, from *Würtemb. Med. Corresp. Blt.* xxxix. 19. D. F. C.

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25. *Angina Pectoris relieved by Nitrite of Amyl.*—Two cases of this were communicated to the Clinical Society of London, Feb. 11th, 1870.

The first was by Dr. LAUDER BRUNTON. The patient, a man æt. 26, was in the clinical wards of the infirmary, Edinburgh, during four months, under the care of Professor Bennett. He had had seven attacks of acute rheumatism, and had suffered from symptoms of disease of the heart for several months. When admitted, he presented the physical signs of aortic obstruction and regurgitation with hypertrophy of the left ventricle, and suffered during the whole of the time that he was in hospital from severe paroxysms of præcordial agony, the pain extending from the chest to the right side of the neck and the right arm. These attacks occurred mostly during the night, each lasting one or two hours; they were not relieved by aconite, digitalis, or by stimulants, but the patient was considerably benefited by small bleedings. During an attack of acute rheumatism, the pain entirely disappeared. Six weeks after admission, treatment by inhalation of nitrite of amyl was commenced, a few drops only being employed at a time. The pain was relieved, or rather ceased, as soon as the characteristic symptoms of the physiological action of the drug manifested themselves—*i. e.*, flushing of the countenance and amplification of the pulse. On many occasions, the effect of the remedy was observed with the aid of the sphygmograph. The tracings showed (1) that the arterial expansion is much diminished and the arterial tension correspondingly increased during the paroxysm of angina, the smallness of the pulse being due to its hardness; and (2) that, under the influence of nitrite of amyl, the arterial tension is diminished and the expansive movement increased by the direct influence of the compound in relaxing the muscular walls of the arteries. Dr. Brunton concluded that nitrite of amyl is of great value as a means of affording immediate relief in all cases in which pain is due to arterial spasm.

The second was by Dr. ANSTIE. The patient was a gentleman æt. about 50, of a highly nervous temperament, a sufferer for the last twenty years from spasmodic asthma, and very liable to facial neuralgia. Between four and five years since, he began to suffer from severe and frequently recurring attacks of angina pectoris, and his life was for a long time in much danger. By the use of sulphuric ether in large doses, and of considerable quantities of alcoholic stimulants, the attacks were diminished in frequency and violence; but they recurred at intervals, whenever the patient was much fatigued or excited in the course of his professional work. In December last it was determined to try the nitrite of amyl, and, on the recurrence of the next anginal spasm, the sufferer took one long and powerful inspiration through one nostril from a half-ounce bottle of the drug. After a pause of a few seconds, the characteristic flushing of the face and sense of fulness in the head were induced, and the patient instantly passed from agony into a state of perfect calm repose. The experiment has been several times repeated on the recurrence of the heart-pang, and always with complete success; and the patient has been able to entirely dispense with the disagreeable necessity of taking large and frequent doses of ether, and also greatly to reduce his allowance of stimulants. There has also been much less trouble than formerly from asthma, and he has obtained far more natural sleep at nights. The angina, although very severe, appears to be purely neurotic; no cardiac change, or at most a small amount of dilatation, can be discovered by the most minute physical examination. From some further observations, Dr. Anstie believed that nitrite of amyl is a relaxer of spasm in all involuntary muscular fibre, and that it would be particularly useful in colicky affections. He would not, however, advise its use by aged persons or others who might be likely to have commencing degeneration of the minute vessels of the brain, for fear of apoplectic accidents. —*Brit. Med. Journ.*, February 26, 1870.

26. *Arseniate of Antimony in Pulmonary Emphysema.*—Dr. KOCH recommends the employment of this remedy in emphysema, not only on empirical grounds, but because he considers it may reasonably be regarded as a nervine and muscular tonic. Hence, since in emphysema the pulmonary vessels are dilated and inelastic, rendering them incapable of contracting in the act of inspiration, the administration of the arseniate effects improvement through its invigorating influence on the contractile fibres, enabling the respiratory acts to be more easily accomplished. Again, the arseniate is particularly efficacious in those cases in which there are frequent attacks of asthma; for these are induced either by centripetal or centrifugal irritation of the spinal cord and medulla oblongata. The *point de départ* of the attacks is either peripheric or central. It is peripheric when the branches of the pneumogastric are acted on at their extremities by any cause, as vitiated air, a temperature too cold or too hot, which may lead to congestion of the neurilemma, or otherwise interfere with the nervous current. In such cases the arseniate of antimony, employed in the form of fumigations, produces excellent results. Both metals have an elective action on the lung, and are eminently sedative and capable of relieving congestion. When, however, the attacks of asthma are due to emotion, or to some other centrifugal action, there is little chance of benefit from this mode of treatment. The arseniate is employed in the form of cigarettes, containing a definite proportion of the drug, and the smoke taken into the mouth is slowly and gently inhaled into the lungs.—*Practitioner*, March, 1870, from *La Presse Méd. Belge*, No. 5, 1870.

27. *Hiccough treated by Mustard.*—Dr. JANUARIZ reports in the *Siglo Medico* the case of a Spanish physician, who, during convalescence from an attack of enteric fever, had obstinate hiccough, which lasted three days, in spite of antispasmodics, narcotics, counter-irritants, etc. He desired his wife to prepare him some infusion of linseed; she gave him by mistake an infusion of mustard, which had the effect of at once and permanently curing the hiccough. He afterwards tried the remedy on some of his own patients, with this same result, and Dr. Januariz has given it successfully in three cases where the symptoms had lasted several days. The dose is a teaspoonful of mustard in four ounces of boiling water.—*Brit. Med. Journ.*, January 29, 1870, from *Bull. Gén. de Thérap.*, January 15, 1870.

28. *Treatment of Dropsy by Milk Diet.*—Assistant-Surgeon J. FAWCUS, M. D., Superintendent, Alipore Jail, states (*Indian Med. Gaz.*, Jan. 1, 1870) that "the treatment of dropsy by a pure milk diet has been practised by Indian *kobirajes* for ages, and within the last two years a Russian physician has made known the treatment in Europe. I commenced the treatment three years ago, and am convinced that it has prolonged the lives of many, whose cases would have been considered hopeless with any other treatment yet known. The cases for which I think it most suitable are those of anæmia with ascites and anasarca, which result from malaria, and are accompanied with impaired nutrition leading to pigmentary and fatty degeneration. The treatment is also beneficial in the cases of chronic dysentery in which the same alterations of the tissues are found. I am inclined to believe that the milk treatment has the effect of counteracting the defective nutrition which leads to an accumulation of fat in the liver, for I have found either no fat at all, or a very small quantity, in the livers of patients who died of chronic dysentery after having been subjected to the milk treatment; whereas under ordinary circumstances the liver in chronic dysentery is loaded with fat. Sufficient evidence, however, to prove that this is the correct theory of the action of the milk treatment has not yet been collected.

"The treatment consists in giving the patients absolutely nothing but milk, not even water. At first two pints per diem are allowed, and the quantity is gradually increased according to appetite, until it amounts to eight pints daily, or even more."

Dr. F. relates five cases of dropsy successfully treated by this mode, and adds: "Besides the above, many other prisoners have been cured of dropsical affections by the milk treatment, and some of these are now doing their regular task in jail. It is unnecessary, however, to give further details, as these five cases are sufficient evidence of the value of the treatment. The treatment has been found to be equally successful in the Dullundah Lunatic Asylum. There is sometimes difficulty in persuading the patients to submit to the treatment, on account of the intense craving for solid food. This difficulty, I have no doubt, will occasionally in private practice be insurmountable."

29. *Ergot to Arrest Excessive Perspiration.*—Dr. Christman, it is stated, in the *Würtemb. Med. Corresp. Blatt*, 1869, No. 20, has seen in many cases of excessive perspiration, a diminution of the cutaneous discharge ensue promptly upon the exhibition of ergot (8 to 10 grammes four times a day).—*Centralblatt f. d. Med. Wissenschaften*, Nov. 20, 1869. D. F. C.

30. *Variola, Varioloid, Varicella.*—Dr. Wolff, in reference to the relationship of these three diseases, maintains that they are simply results of the action upon the system of one and the same virus, but of different degrees of intensity. This opinion is based upon observations made during a variolous epidemic which prevailed in a hotel of cadets, during which there occurred simultaneously, in common with cases of genuine, unmodified variola from contagion, cases also of unquestionable varicella and also of varioloid. Dr. W. further remarks that he has often observed the occurrence upon the skin of a true vesicular exanthem to be preceded by the same scarlet efflorescence as is usually observed to be a precursor of admitted variolous disease. Further, he has found the eruptive fever in cases of varicella of extraordinary severity, and the eruption to be attended with severe anginose suffering as in unmodified variola, and the eruption to terminate not by a small hard exfoliation, but with a genuine scab, leaving on its separation a permanent cicatrix.—*Centralblatt f. d. Med. Wissenschaften*, April 17, 1869, from *Deutsche Klinik*, No. 7. D. F. C.

31. *Cutaneous Pruritus of the Outer Meatus of the Ear.*—Dr. Gruber by the name cutaneous pruritus indicates an intolerable itching of the external meatus auditorium, which occurs in paroxysms, often periodical, but usually varying in duration and frequency. It is entirely unconnected with the itching alluded to by Hebra as the result of *eczema* of the same locality. The cutaneous pruritus of the ear is attended by no other objective or subjective primary symptom save the itching. It occurs for the most part in persons of middle age, especially those labouring under some disturbance of the circulation. As palliatives for the itching, Dr. G. advises soothing watery or oily preparations to be dropped into the ear. For radical cure he employs a solution of nitrate of silver (6.0 to 8.0 grs. to the ounce of distilled water) with which the parts affected are to be frequently pencilled until the paroxysms of itching no longer recur. There are no doubt cases in which an internal depurative treatment will be found to expedite the cure.—*Centralblatt f. d. Medicin. Wissenschaften*, March 20, 1869, from *Allgem. Wien. Med. Zeitung*, 1868, 52. [We have met with many of the cases of pruritus of the ear described by Dr. G. They have never given us any trouble when we were able to place our patients under favourable hygienic circumstances. As local applications we have received great advantage from strong solutions of borax or of sulphate of zinc; in some obstinate cases we have derived prompt relief from a solution of carbolic acid in glycerine applied locally.] D. F. C.

32. *Internal Use of Carbolic Acid in some Cutaneous Affections.*—Carbolic acid has been employed rather extensively in the wards of Professor Hebra, of Vienna, with results of considerable interest, which are reported by Dr. Moritz Kohn. Under it hyperemia of the skin diminishes and finally disappears, a brown discoloration remaining; exudations become absorbed, and the formation of scales ceases. Cases of psoriasis, of pityriasis, and of pityriasis rubra have been rapidly cured by the use of this remedy without any external application whatever.

It is worthy of remark that during the internal administration of the remedy the urine was not found to present the dark colour and tarry odour which is observed after the liberal application of carbolic acid to wounds after operation. It affects the kidney a little, when long administered; for example, a little albumen was observed in the urine, and epithelial cells from the tubuli uriniferi and the pelvis of the kidney were noticed. No troublesome urinary symptoms were, however, discovered.

Carbolic acid seems to possess a powerful effect on diseases accompanied by severe itching of the skin. Prurigo and pruritus cutaneus having been found to yield to its use in a remarkable manner—the itching in some cases ceasing almost immediately after its administration.

The form in which the remedy is best administered is that of pills. Each pill contains one grain, with four grains of some inert powder, and of these six to nine are administered daily at the beginning, the number being subsequently increased to from twelve to twenty. As much as a drachm of carbolic acid has been administered daily without injury, but so large a quantity is not necessary to produce the therapeutic effects. Dr. Kohn observes that in cases in which carbolic acid was found of decided utility, its beneficial effects were shown at a very early period after the commencement of its administration, often after a single day; and that in cases in which it failed to produce benefit early, it usually failed altogether.—*Dublin Quar. Journ. Med. Sci.*, Nov. 1869, from *Archiv. für Dermatologie und Syphilis*. Prag. 2 Heft, 1869.

33. *Treatment of Psoriasis.*—Dr. PASSAVANT, in a letter to Prof. Hebra, recommends, as a specific remedy for psoriasis, the employment of an exclusively animal diet. Dr. Passavant's first experiment was made upon himself. He has suffered for twenty-five years from this disease, which ultimately affected the entire surface of the body, notwithstanding the trial of all the ordinary remedies. When the affection was at its height, both in point of extent and in severity, he experimented on the effects of an exclusively animal diet: immediate improvement was observed, and after a few weeks he was perfectly well. Dr. Passavant states that he has seen another case of psoriasis treated in a similar manner, in which the scabs entirely disappeared in the course of six weeks. On the patient's returning to an ordinary diet a relapse occurred, which was again overcome by a return to an exclusively animal diet. Dr. CASPARI, in some observations on this mode of cure, observes that he has had no opportunity of trying it, but that he is himself an example of the curative effect of a precisely opposite plan of treatment. It appears that, like Dr. Passavant, he has been for full thirty years subject to psoriasis, affecting the whole of the body, together with the upper and lower extremities. He also had tried all kinds of remedial means without effect; but some years ago, in consequence of a chronic catarrhal affection of the stomach, he was unable for many months to take anything for breakfast beyond a cup of milk with a little bread, soup and rice for dinner, and milk porridge for supper. His practice being considerable, this diet was insufficient to maintain his physical powers, and he gradually lost weight, but coincidently his psoriasis vanished: it was starved out.—*Practitioner*, March, 1870, from *Deutsche Klinik*, Dec. 18, 1869.

34. *India Rubber Cloth in the Treatment of Skin Diseases.*—Prof. HEBRA learned from Prof. Hardy, when in Paris in 1867, that the latter had used very advantageously vulcanized India-rubber cloth in the treatment of eczema. On Prof. Hebra's return to Vienna he adopted this measure, and has published (*Archiv. für Dermatologie und Syphilis*, 1869) the result of a year's experience with the vulcanized India-rubber cloth not only in eczema, but in various scaly eruptions.

He says (*American Journal of Syphilography and Dermatology*): "We have subjected to this form of treatment every variety of eczema, from the scaly to the pustular form, using either closely-applied pieces of India-rubber cloth, or bandages, or clothing made of that material. In every case the smooth side of the cloth was brought in contact with the skin, the products of the disease —scales, crusts, &c.—either having been first removed, or else, by way of experiment, the cloth sometimes applied directly over these. If the India-rubber cloth be removed after twelve or fourteen hours, it appears very moist —sometimes permeated by moisture—and the fluid which has collected in great quantity on the surface of the skin has a very penetrating and disagreeable odour. The skin itself, however, after having been cleansed from its superimposed collection of softened skin secretions, was odourless, reddened, somewhat deprived of its epithelial covering, moist and shining. While the India-rubber was applied, the patient experienced no disagreeable sensation—neither itching nor pain after removal of the covering; however, itching immediately re-occurs, and if it is not replaced for some time—say half an hour—a sense of tension and pain commences. If the treatment is continued in this way, the whole train of symptoms diminish—moisture, redness, itching and pain—and in many cases the cure of the eczema will occur at the end of two months. As is well known, a cure of eczema can be effected in the same space of time by various means. The question then arises, what advantage does the caoutchouc treatment offer above any other? The answer is, that if no especial advantage can be recognized in India-rubber, nevertheless there are some cases in which this form of treatment can be more beneficially employed. I refer to cases of eczema of the hands, fingers, large joints, scrotum and feet, in which the application of salves is attended with many inconveniences to the patient. Moreover, the India-rubber preparations are calculated to relieve the pain caused by fissures, because the impermeable covering keeps the part continually moist, which can be done by the application of India-rubber gloves, finger-stalls, bandages closely applied, suspensories, and stockings. If, therefore, by the use of caoutchouc in the treatment of eczema, no new panacea has been introduced into the therapeutics of skin disease, yet it must be recognized as a very valuable addition ; and so much the more, as it does not forbid the use of any other application. Thus, in many cases, the cure of eczema is materially assisted by the simultaneous use of soap, baths, douches, preparations of tar; and these last are rendered more efficacious by the use of caoutchouc cloth. There are other diseases of the skin, especially the callous thickening of the epidermis, in pityriasis, xerosis, psoriasis palmaris, as well as in zylosis of the sole of the foot, where India-rubber stockings render the painful fissures painless immediately, and their continued use will induce a cure. In some cases of burns of the second degree, the same plan of treatment was attempted, and it succeeded perfectly; but at the same time I could not attribute it to any advantage over cold or lukewarm applications, or the use of the common ointments, lime-water and sweet oil, &c. In order to macerate the epidermic covering of the smallpox eruption, so as to favour the re-absorption of the contents of the pustules, or to promote their discharge, I attempted the application of the India-rubber cloth—that is, I applied India-rubber bags to the extremities, changing them every twenty-four hours, and cleansing the skin. The course of the smallpox, indeed, was not in the least changed by this mode of treatment; only the marked maceration of the thick epidermis on the soles of the feet and palms of the hands decreased essentially the pain so often present in these regions, and this was the only advantage in this form of treatment. India-rubber was most effectual in four cases of general pruritus, which certainly commenced in connection with eczema, but also extended to non-eczematous portions of the body, and could properly be designated as pruritus cutaneus senilis. Four old men between sixty-five and seventy-five years of age were the victims of this disease—one only in hospital, the other three in private practice. In all four patients I had complete suits of the vulcanized cloth made, and made them at the first wear them day and night next to the skin, the garments either to be changed night and morning, or if, as in the case of the hospital patient, only one suit was to be obtained, it should be taken off for a short time, washed, cleansed, and again put on. The effect of treatment showed itself from the first day, in the fact that sweat was secreted more freely, itching and tension of the skin subsided, and sleep returned. The patients were all pleased by the result, and submitted gladly to further treatment. After the expiration of a few weeks the India-rubber clothes were worn either only at night or for a few hours during the day, until, after complete convalescence, they could be removed. The eczema, too, could be so much the more readily treated with the usual applications, tar, &c., as the caoutchouc covering modified the odour and prevented staining.

"In conclusion I must reiterate that the India-rubber treatment can be relied on to obviate the itching and tension; but for the relief of the eczematous inflammation, tar, &c., must be used."

35. *Uses of Carbolic Acid.*—Dr. GIBB, of the Monkland Iron Works, states that, following the recommendation of Dr. Jones Gee and others to sponge the patient with tepid water, and subsequently to grease the skin with mutton suet, in scarlatina, he has found the addition of carbolic acid, in the proportion of one to twenty of the suet, to afford very considerable relief. In otorrhœa he has found great advantage accrue from sponging the ear with tepid water, and carbolic acid one to forty, and subsequently dropping into the meatus a little of the following mixture: Glycerine one ounce and a half, carbolic acid one drachm, sedative liquor of opium (Battley's) twelve minims. The fetid discharge is thus arrested. In throat complications he has obtained marked benefit from the use of Dr. Neilson's "inhaler," to the sponge of which are added a few drops of carbolic acid and Condy's fluid in equal proportions, requiring the patient to inhale the impregnated steam several times daily. As to the treatment of burns and scalds by means of carbolic acid, Dr. Gibb cannot speak too highly. In the Monkland Company's Works upwards of 1600 workmen are employed, and burns are of frequent occurrence. He finds the addition of carbolic acid, in the proportion of one part to twenty of the ordinary carron oil, the best treatment, and adds one grain of acetate of lead to the ounce of lime-water before mixing it with the olive oil. The plan he adopts is to saturate most thoroughly several sheets of ordinary surgeon's lint with the above mixture, and entirely envelope the parts; over this he applies a thick layer of cotton-wool, which is removed every second day, to enable a further coating of the mixture to be applied to the lint, which he does not disturb, by means of a feather or fine brush. In one case the whole trunk was skinless; after the lapse of several days all the dressings were removed, and it was found that a new skin had formed. During all this time not a drop of pus could be detected, nor was any other unhealthy action present.—*Practitioner*, Feb. 1870, from *Lancet*, Dec. 11, 1869.

SPECIAL PATHOLOGY AND THERAPEUTICS, AND OPERATIVE SURGERY.

36. *Traumatic Tetanus treated by Calabar Bean and Division of Posterior Tibial Nerve; Recovery.*—Mr. S. WOOD communicated the following very interesting case to the Shropshire Scientific Branch of the British Medical Association:—

J. E., aged 60, was admitted into Salop Infirmary, on May 6th, 1869, with compound fracture of the proximate phalanx of the left great toe, caused by a cut with an axe. It was a clean cut, nearly severing the toe. He had lost a considerable quantity of blood when admitted. The parts having been brought into apposition, the wound was dressed with water-dressing. He was ill-nourished, having gained a precarious living by begging, and, at times, had been in the habit of drinking freely. He went on well without a bad symptom until the 25th, three weeks after the injury, when he first complained of stiffness about his jaws, and difficulty in opening his mouth. His countenance was pinched and anxious. He was ordered a dose of turpentine and castor oil, and put upon milk, beef-tea, and wine. On May 27th, the symptoms were more marked; there was pain in the nape of the neck, and rigidity of the abdominal muscles. He could only open his mouth slightly, and swallowed with difficulty. He was then ordered a twelfth of a grain of extract of Calabar bean, every four hours, by the mouth.

On the 28th the symptoms were most urgent. The dose of the extract was